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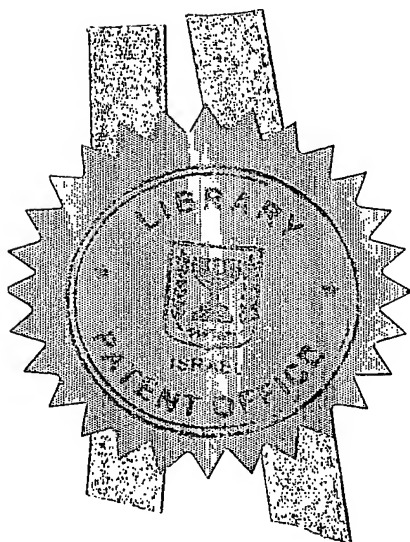
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# בקשה לפטנט

Application for Patent

אני, (שם המבקש, מענו - ולגבי גוף מאוגד - מקום התאגדותו)

I (Name and address of applicant, and, in case of body corporate place of incorporation)

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קיפי - מוצרים אינטראקטיביים לחינוך  
ובידור ילדים בע"מ (חברה בהקמה)  
ת.ד. 9187  
רמת אפעל 52190  
ישראל

שמה הוא Assignment  
Of an invention, the title of which is

העברה בעל אמצאה מכח  
Owner, by virtue of

משחקי DVD על טלוויזיה (בעברית)  
(Hebrew)

DVD Games on a TV

(באנגלית)  
(English)

Hereby apply for a patent to be granted to me in respect thereof

מבקש בזאת כי ינתן לי עליה פטנט

*בקשת חלוקה - Application of Division		*בקשת פטנט מוסף - Application for Patent Addition		*דרישה דין קדימה Priority Claim	
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329/02593

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משחקי DVD על טלוויזיה

DVD Games on a TV

ממציאים:

אלי דוד  
חיים אשר

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Eli David  
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קיפי - מוצרים אינטראקטיביים לחינוך  
ובידור ילדים בע"מ (חברה בהקמה)

KIPEE - Kids Interactive Products for Education  
and Entertainment Ltd. (in formation)  
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## **DVD GAMES ON A TV**

### **FIELD OF THE INVENTION**

The invention relates to TV/Digital Video (DVD) games.

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### **BACKGROUND OF THE INVENTION**

Many homes have TV and a DVD player to play DVD titles on the TV. However the DVD and TV cannot generally be used together to operate an interactive program or to play an interactive game. Generally to play an interactive game or use an interactive program a computer or a special game machine is used.

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Various Digital Video devices (DVDs) are known in the art to play various DVD titles that consist of various kinds of contents. Most DVD titles are of "linear" nature, meaning they do not provide interactivity to the viewer.

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Most standard DVD players are technologically different in comparison with a PC in the following ways:

1. Unlike a PC, most DVD/TV are incapable of processing users' input data.
2. Unlike a PC, most DVD/TV do not have the capability of storing data received from users.

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As a result of this, the viewing experience of viewers' DVD titles is relatively "passive" in comparison to the interactive options currently provided by PC CD-ROMs. Thus truly interactive DVD/TV titles are not feasible on standard DVD players.

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### **SUMMARY OF THE INVENTION**

The present invention is intended to convert two passives devices commonly found in the home, namely, a DVD player and a TV, into an interactive home entertainment system particularly suitable for small children to play interactive games similar to those that they can now play on a home computer. The keyboard of the present invention designed to transmit IR instructions to the DVD player in a similar manner to a conventional remote control. The keyboard of the present invention is designed to be used with a storage medium, for example,

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a flash memory, for playing back specific multi-media DVD segments from a DVD to convey an interactive user experience as described below with reference to a round of Trivia notwithstanding that in actual fact there is only a uni-directional flow of information, namely, from the inventive keyboard to the DVD player:

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A user is shown a green apple on the TV and is asked the following question "What color is the apple?". The four possible answers to the question are also shown on the TV: 1st button: Green, 2nd button: Red, 3rd button: Blue, 4th button: Yellow. If the user correctly presses the 1st button, the inventive keyboard instructs the DVD player to jump to a particular  
10 location for playing back a multimedia DVD segment, say, showing clapping hands on the TV together with loud cheers. Against this, if the user presses any of the other buttons, the inventive keyboard instructs the DVD player to play back a different multi-media DVD segment, say, showing a sad face asking the user if he wants to try to answer the question again. The inventive keyboard can also keep score, etc.

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Unlike in the prior art, the inventive keyboard does all of the processing on board. Thus, the keyboard includes a memory, a microprocessor and a smart card reader to protect the operation and to keep score. In this invention, the keyboard includes the processing power to run the application and the DVD player remains a 'dumb' unit which merely plays the data  
20 stored in it.

### BRIEF DESCRIPTION OF FIGURES

Fig. 1 schematically shows a keyboard, in accordance with an embodiment of the present  
25 invention; and

Fig. 2 schematically shows a system diagram, in accordance with an embodiment of the present invention.

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### DETAILED DESCRIPTION

The current invention relates to an add-on apparatus to any standard DVD Player that will enable any such player to play interactive DVD titles.

35 This apparatus would hook up wirelessly/IR to any standard DVD player (as an add-on apparatus to a DVD Player). This apparatus as shown in figure no. 2 would consist of:

1. A unique ergonomically designed keyboard ("Interactive keyboard") (consisting of reprogrammable soft keys for various DVD titles). The Interactive keyboard would incorporate a memory and a control unit which would guide the DVD player by transmitting its commands (these guiding commands would be transmitted by IR, the same way any standard remote controller does). The "Interactive keyboard" would provide options for user interface modifications by altering different keyboard covers.

2. Interactive DVD titles that provide educational and entertainment content designated for kids, similar to the interactive content that exists in the CD-ROM/PC realm.

3. A specific "Smart Card" designated for each specific DVD title. The "Smart Card" would contain the information of the managing software, as it is stored on every DVD title. This data is a mirror image of the specific management layer for each DVD title and would enable the "Interactive keyboard" to track the users' actions in accordance with the content that is displayed on the TV screen. It would store this information and enable the "Interactive Keyboard" to perform calculations and system decision making based on users' aggregate performance and provide feedback to the viewer.

#### **User Interface of "Interactive Keyboard":**

- 4 directions buttons – Are used as navigational tools to control the viewer's screen – practically meaning: menu scrolling.
- Enter button – "OK" – Is used to confirm the users choice while scrolling.
- 10 optional game buttons (consisting reprogrammable soft keys for various DVD titles) – Are to be used differently with each specific content played by the system.
- A star shaped button – used for random access to a specific content.
- A LCD screen – Displays instructions, scoring and different messages.
- Control buttons – Play, Stop, and Pause.

#### **Potential Interactive functions provided by the "Interactive keyboard":**

1. Adjustment of selective content to the specific learning and achievement level of the viewer.
2. Provide feedback on the progress of the viewer user by means of a scoring system.

3. Actively involve the viewer in the viewing experience while encouraging the viewer to decision making, setting challenges, personal expression and creativity.
- 5 4. The system has the capabilities of storing the data of previous performance of the viewer, for future sessions.

This system has the capabilities of making autonomic decisions based on the aggregate performance of the viewer.

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## CLAIMS

1. A method of playing a video game using a TV and a DVD player that generates images on the TV responsive to image data stored at addressed locations on a DVD title inserted into the DVD player and a signal encoded with an image address received by the DVD, the method comprising:

a) inserting a game DVD title inscribed with image data for the video game into the DVD;  
b) storing in a memory not comprised in the DVD player, image addresses corresponding to the image data on the game DVD title and at least one algorithm for determining an image address from an action performed by a player of the game;

c) determining address data responsive to an action performed by a player of the game and data stored in the memory without recourse to a signal from the DVD;

d) transmitting the address data to the DVD to cause the DVD to display at least one image corresponding to the address data on the TV;

e) generating address data responsive to a next player action without recourse to a signal from the DVD; and

f) repeating d) and e) a plurality of times.

2. Apparatus for playing a video game using a TV and a DVD player that generates images on the TV responsive to image data stored at addressed locations on a DVD title inserted into the DVD player and a signal encoded with an image address received by the DVD, the apparatus comprising:

a) a game DVD title inscribed with image data for the video game into the DVD;  
b) a memory separate from the DVD player storable with image addresses corresponding to the image data on the game DVD title and at least one algorithm for determining an image address from an action performed by a player of the game;

c) a transmitter for transmitting signals comprising address data to the DVD; and

d) a controller separate from and connectable to the DVD player that determines address data responsive to an action performed by a player of the game and data stored in the memory



without recourse to a signal from the DVD and controls the transmitter to transmit a signal encoding the address to the DVD player.

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For the applicant,



10 Fenster & Co. Patent Attorneys, Ltd.

c: 329/02593

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FIGURES

Fig. No.1

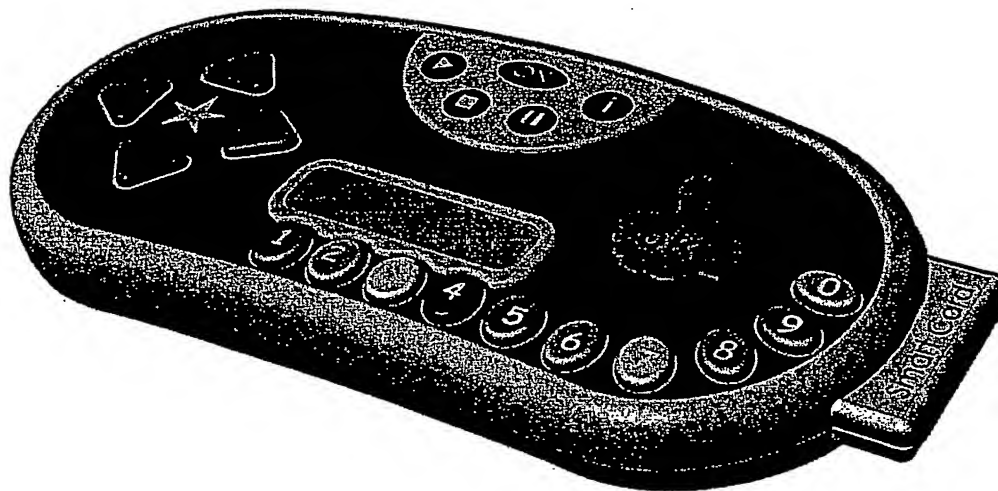
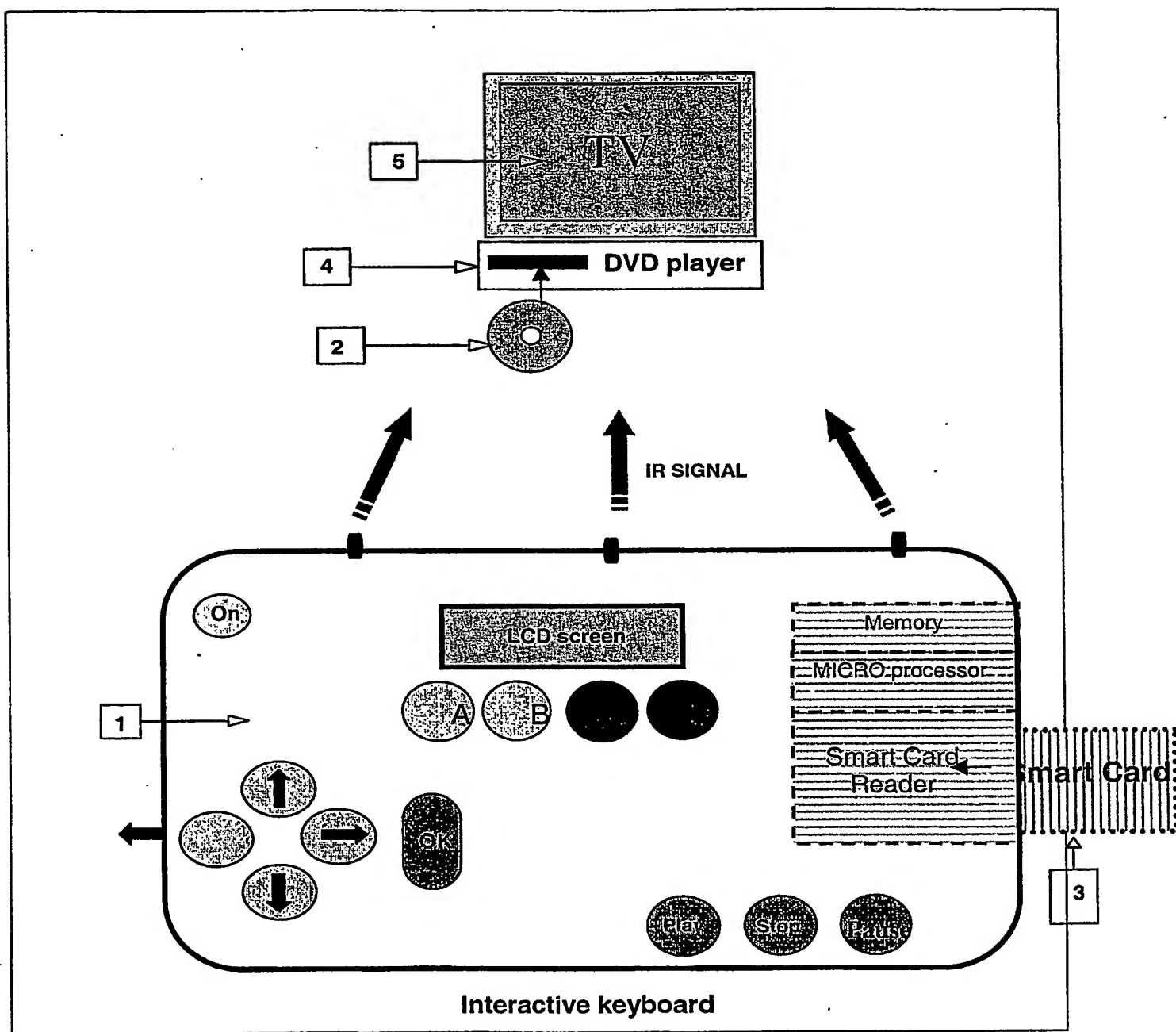


Fig. No.2  
System Diagram



1. Interactive keyboard
2. DVD Media
3. Smart Card
4. DVD Player
5. TV

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